

FOLIO

THE UNIVERSITY OF ALBERTA STAFF BULLETIN

EDMONTON 7, ALBERTA

JULY 29, 1971

R. M. HARDY AND LEONARD GADS LEAVE DEAN'S OFFICE

R. M. HARDY will retire as Dean of Engineering August 31, 1971. He served as Dean from 1947 to 1959 and from 1963 to the present time.

In 1929 Bob Hardy received his Bachelor of Science degree as the Gold Medalist in Civil Engineering at the University of Manitoba. He obtained his Master of Science degree at McGill University in 1930. In 1957 he received an Honorary Doctor of Science degree from the University of Manitoba.

Dr. Hardy joined the academic staff at The University of Alberta in 1930 as a sessional lecturer in Civil Engineering. In 1947 he was appointed Professor and Head of the Department of Civil Engineering, and Dean of the Faculty. He resigned in 1959, serving as a part-time Research Professor in Civil Engineering until 1963, when he was reappointed Dean.

Highly regarded by his colleagues and students as both a teacher and a practicing engineer, Dr. Hardy has attracted large numbers of graduate students to the University. He developed the largest school of graduate study in civil engineering in Canada. His close association with professional and technical engineering bodies has made him influential in defining the roles of education and research in the profession.

Dr. Hardy says, however, engineering as a career for today's students has lost its attractiveness. The roots of the problem extend as far back as the high schools.

"There must be a change in the entire educational system," he says, "to accommodate the students and give them some flexibility in the courses they take in high school as well as at university. We must find a compromise in the criteria on which a student is judged for admission to engineering. In the humanities, a student's ability is judged, but in engineering we have had to see achievement as well as ability. Perhaps we should demand mathematics, take our chances on English, and not demand any chemistry or physics at all."

Outside of engineering circles, people seem to think the faculty's only goal is to teach techniques. Not so, says Dr. Hardy, citing as proof the fact that at least 25 per cent of his graduates have practiced in something other than their specialty fields.

"This does not mean their education has been a waste. To make any sense of engineering education at the university level, the prime objective must be to give the student a broad background, mental development. We have tried to set up options so engineering students can take any course at the University. We also are stressing theory more than technique because there is such a vast amount of accumulated knowledge."

To obtain a liberal education for students in all departments, a co-operative effort must be made by all the faculties. Dr. Hardy considers the concepts of a course combining social, moral, and technological education very good, but he questions whether it should be done as a separate course rather than as a fundamental part of each class and course in his faculty. "I would hate to think my students hadn't got that preparation in engineering."

As an administrator, Dr. Hardy admits he has been the target of public criticism, one of the points being that engineering graduates do not participate in public affairs.

"This has been a concern of engineering societies for many, many years, and they continually encourage their members to participate in the community and to improve their public image. It is also a public misconception that we try to limit our professional membership, but I have never been told to limit the number of graduates we turn out. As soon as a group organizes into a profession, it must accept the responsibility for training a new generation. This responsibility is the main justification for the existence of engineering societies."

Dr. Hardy also takes issue with the public contention that sabbatical leave is "gravy."

"Since our prime objective is to teach people to think, I would certainly hope each student would continue his education after graduation by taking courses as new things develop. I got more out of my year's study on sabbatical leave than I've got from the rest of my career. It must be continuing education in the truest sense, not just an upgrading of techniques.

"Any success I've had in my profession has been in areas I never even heard of as an undergraduate. It proves the value of continuing education and negates the concept



R. M. Hardy



Leonard Gads

of an engineer becoming obsolete as he grows older."

If the future of engineering as a career is somewhat precarious, universities aren't the only ones with a stake in it, says Dr. Hardy. Changes in the academic structure must be supported by changes in industry.

Current hiring practices call for specialized graduates with work experience, rather than for a certain calibre student with executive potential as well as technical ability. This is crucial in a time when students want to make more than a technological contribution to society.

He says industry also should adopt the sabbatical leave plan, the value of which industry is just beginning to realize.

Dr. Hardy's keen interest in civil engineering and engineering education has led him to an active role in professional, technical, and public service organizations.

He was elected a Fellow of the Royal Society of Canada in 1958 and a Fellow of the Engineering Institute of Canada in 1965. He has served as president of the Association of Professional Engineers of Alberta and of the Canadian Council of Professional Engineers.

Dr. Hardy has been active in the Engineering Institute of Canada, the Canadian Good Roads Association, and various highway research projects. He has been appointed to two Royal Commissions and has served as consultant on many major pipeline projects. He also has investigated numerous engineering failures involving subsoil conditions.

His basic and applied research has covered permafrost conditions, the engineering conditions of muskeg, frost action in soils, strength properties of varved clays, and

the stability characteristics of tar sand.

Dr. Hardy has served on many committees of the National Research Council. He is currently a member of the Alberta Research Council and Chairman of the Advisory Committee to the Alberta Research Council on Highway Research.

LEONARD E. GADS will retire as Associate Dean of Engineering August 31, 1971. Behind him will be a 36-year association with The University of Alberta and scores of students who have heard Professor Gads tell it like it is in Engineering.

Born in Bukhara, Turkestan (now Uzbekistan), in 1907, Leonard Gads came to Canada in 1926 as an agricultural immigrant. Among his possessions when he arrived in Wetaskiwin were two cream separators which he had used as props to convince the immigration officials he was worthy of agricultural immigrant's status. His real goal was to attend university.

Ten years later that goal was realized. With the money he had earned as a farm laborer, Mr. Gads enrolled at The University of Alberta and received his Bachelor of Science degree in Civil Engineering in 1939. He joined the University faculty as an instructor the same year. The only interruption in his University career occurred during World War II when he joined the Royal Canadian Air Force as an aviation instructor, stationed on campus. Although he had never had any aviation instruction, he found the conversion from surveying to aviation a simple one—"All it is, really, is surveying in the air instead of on the ground."

He later was trained as a radar navigation instructor, but the material was so classified that once he had learned it, he wasn't allowed to teach it.

In 1945, Professor Gads retired from the RCAF as a Wing Commander and was selected Conference Interpreter of the Control Commission for Germany, in Berlin. He returned to the University a year later as Professor and Assistant to the Dean of Engineering. In 1959 he was appointed Associate Dean.

During his association with the Dean's Office, Professor Gads found his responsibilities expanding, but he continued his classroom contact—something he considers vital if one is to be an effective administrator. He frequently addressed high school students who were considering studying engineering at the university level. His message? "I encouraged those who should come and discouraged those who shouldn't."

More specifically, he encouraged those students who desired "mental training," not just mechanical ability.

Says Professor Gads: "Success (in engineering) depends not so much on the information gathered while at university as on the formation of proper mental habits, particularly habits of efficient study. . . . There is no room for complacency."

He has never professed to teach anyone anything: "I merely try to help my students learn, to stimulate their interest in a subject and inspire them to pursue it further."

He places much of the educational responsibility on the student but still accepts his duty as an instructor. Describing it in engineering terms, he says there is a transmitter on one side and a receiver on the other. No matter how efficient one may be, there will be no communication if the other is not plugged in. Professor Gads's students are expected to tell him if his transmission is faulty.

In his more than 20 years as an administrator, Professor Gads found himself facing a recurrent problem: how specialized should an engineer's education be. In keeping with his philosophy of favoring mental training over mechanical ability, he believes engineering students should concentrate less on specialization, particularly during the first two years of university. His own experience has taught him the value of the broad background that helps to insure an engineer against technical obsolescence.

Professor Gads is a Life Member of the Association of Professional Engineers. He has served on many national, provincial, and University committees. He also has served as chairman of the Board of Examiners in Professional Architecture and of the Board of Examiners in Professional Surveying. He is an Honorary Member of the Association of Land Surveyors of Alberta and an Honorary Life Member of the Alliance

Française of Edmonton.

Professor Gads has been ill recently, and this has forced him to retire as Associate Dean. However, he considers his retirement an opportunity to "get rid of some of the paper work and do the things I've always wanted to do." He has a stack of French and Russian articles that he has translated into English and would like to have published, and he has maintained a vast network of correspondence through which he exchanges education ideas with professors in the Soviet Union.

SENATE SPECIAL MEETING

By FOLIO Staff

Ex-officio and Appointed members of the University Senate held a special meeting July 20 and elected to the Senate the following new members: RICHARD H. M. ANTHONY, chief crown prosecutor, Edmonton; MRS. BERTHA CLARK, Voice of Alberta Native Women's Society, Fort McMurray; C. ROY COMPSTON, Canadian Manufacturer's Association (Alberta division), Edmonton; FIL FRASER, program manager (Metropolitan Edmonton Educational Television Association), Edmonton; J. L. LAGASSE, barrister, St. Paul; MRS. ALIZON LAMB, former executive secretary, Edmonton Rehabilitation Centre for the Handicapped, Edmonton; MRS. ROSS MUNRO, active member of community and charitable organizations, Edmonton; P. J. MURPHY, superintendent, Forest Technology School, Hinton; and MRS. ETHEL TAYLOR, former alderman, Red Deer City Council, Red Deer.

P. ARNOLD and L. D'ALBERTANSON were re-elected to the Senate.

An ad hoc Committee on the Role of the Senate was elected at the meeting. THE REV. G. M. TUTTLE is chairman, and the committee members are: A. A. RYAN, D. G. BELLOW, M. A. ADAM, DON MC KENZIE, MRS. A. V. CALHOUN, M. G. HURTIG, R. W. CHAPMAN, FIL FRASER, MRS. ROSS MUNROE, and D. J. CARDINAL.

The nomination of Students' Union representative IAN McDONELL to the Nominating Committee of the Senate was approved. A study of University Government is a current Students' Union project.

EDUCATION STUDY FOR KENYA

The Department of Industrial and Vocational Education at The University of Alberta has undertaken a feasibility study to examine technical and vocational teacher education in the Republic of Kenya.

Financed by the Canadian International Development Agency (CIDA), the study is

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William Samis, Editor

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CITIZENSHIP OF ACADEMIC STAFF, 1970-71

The following survey of full-time academic staff at Canadian Universities was published in the DBS Weekly for July 16, 1971, and was prepared by the Dominion Bureau of Statistics, Ottawa.

An estimated 61.5 per cent of the full-time academic staff of 111 Canadian universities and colleges held Canadian citizenship in September

of 1970. Another 15.3 per cent held American citizenship and 10.1 per cent British. Among major fields of study Canadian citizenship varied from a high of 70.3 per cent in the biological sciences to a low of 50.5 per cent in languages.

Figures for "number" total down and across; figures for "per cent" total across in rows.

Citizens of:	Canada		France		India, Pakistan		United Kingdom		United States		Other countries		Total Equals 100 per cent
	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	
Faculty administration	295	87.8	4	1.2			12	3.6	24	7.1	1	.3	336
Humanities	1,260	61.6	28	1.4	9	.4	148	7.3	491	24.0	109	5.3	2,045
Languages, literature	1,510	50.5	229	7.7	19	.6	401	13.4	520	17.4	314	10.4	2,993
Pure sciences	1,806	59.5	79	2.5	156	4.9	429	13.7	349	11.1	324	10.3	3,143
Biological sciences	2,528	70.3	46	1.3	70	2.0	392	10.9	296	8.2	263	7.3	3,595
Physical sciences	1,054	65.9	67	4.2	56	3.5	168	10.5	79	4.9	176	11.0	1,600
Social sciences	4,429	61.2	136	1.9	130	1.8	552	7.6	1,463	20.2	530	7.3	7,240
Total	12,882	61.5	589	2.8	440	2.1	2,102	10.1	3,222	15.3	1,717	8.2	20,952

being carried out at the request of the Kenyan Ministry of Education.

The secondary school system in Kenya has recently expanded its curriculum to include vocational and technical subjects. More qualified teachers must be found to handle the increased teaching responsibilities.

The study is being made by a five-man team directed by JAMES GALLAGHER, Chairman, Department of Industrial and Vocational Education at the University. Other members are: DARRELL LE BLANC, Assistant Professor in Dr. Gallagher's department; TED RAMSEY, a graduate student in the same department; H. W. BEATTY, Director, Department of Technical Teacher Education at the University of Western Ontario; and E. H. LANGE, Director, School of Agriculture at the University of Manitoba.

The results of the study, to be completed by the end of October, will be presented to CIDA and may include recommendations for an exchange program between Canada and Kenya.

PEOPLE

■ GEOFFREY VOSS, Professor of Electrical Engineering, has been awarded a \$71,000 major equipment grant by the National Research Council for work in power engineering and microwave biology. Professor Voss, who founded the International Microwave Power Institute at this University in 1966, is the microwave research group leader in the Department of Electrical Engineering.

■ K. W. DOMIER, Professor and Chairman of the Department of Agricultural Engineering, assumed the office of president of the Canadian Society of Agricultural Engineering at the annual meeting in Lethbridge. Associate

Professors E. RAPP and J. B. MCQUITTY and former graduate students A. AASEN, W. B. CAMPBELL, R. G. CESSFORD, W. E. COATES and S. TIWARY were involved in the presentation of papers.

PHARMACY AWARD

MISS ELAINE YAKIMETS, a graduate student in the Faculty of Pharmacy at The University of Alberta, has been chosen as the 1971 McNeil Award winner.

The MacNeil Award, presented by the Canadian Society of Hospital Pharmacy, is given to a person presenting work that may further enhance professional pharmaceutical practice in hospitals and the community at large.

Miss Yakimets was chosen on the basis of "Alice's Pharmacological Odyssey," her audiovisual presentation dealing with the problems that arise from drug therapy.

The award will be presented August 18 in Winnipeg.

PRESENTATION OF RECORDS

Thirty-seven recordings of British music have been presented, on behalf of the British Council, to the Department of Music at The University of Alberta.

GEOFFREY MILES, British Trade Commissioner designate, made the presentation July 26 to R. A. STANGELAND, Professor and Chairman of the Department of Music at the University.

NOTICES

COURSE ON ENVIRONMENT

The executive of the Graduate Students' Association has agreed to the proposal of the University's Interdisciplinary Committee

for Environmental Quality that a course on environmental problems should be presented in the fall jointly by faculty and graduate students. It is intended to provide this course in the evening under the auspices of the Department of Extension (G. H. WRIGHT).

The course will be open to all University students, as well as to the public. The present plan calls for the course to begin in November, with a series of lectures and discussions on important areas such as energy cycles, resources, biological cycles, population, steady-state economics, sources of pollution, measurement of pollution, etc. About January the participants will break up into groups of five to eight to identify, analyze, and take action regarding environmental problems.

Graduate students and faculty will be needed as lecturers, resource personnel and, in some cases, problem-group leaders. To further formulate plans for this course, a meeting of graduate students and faculty who would be interested in participating will be held on Wednesday, September 8 at 8 p.m. in the Meditation Room of the Students' Union Building.

For further information or comment, please write or telephone E. E. DANIEL, Professor and Chairman of Pharmacology, Department of Pharmacology, 432-3576.

LIBRARY CIRCULATION CONSOLIDATED

The circulation services for the General and Medical Sciences, and the Humanities and Social Sciences collections have recently been consolidated. Materials from the General and Medical Sciences libraries are to be charged-out, renewed, reserved, or returned only at the main circulation desk on the main floor. Exceptions to this are reserve book materials, and journals located in the Medical Sciences library. These last may

also be checked out at the main desk, however, if the department service desk is closed.

AUGUST IN THE BOTANIC GARDEN

The following plants are normally in flower during August at the Botanic Garden and Field Laboratory, which will be open on the first Sunday and every Saturday from 1 to 7 p.m. *Actea* (baneberry); *Tanacetum* (tansy); *Eryngium* (sea holly); *Solidago* (golden rod); *Cimicifuga* (snakeroot); *Gentiana* (gentian).

THIS WEEK AND NEXT

SUMMER FESTIVAL

The Torches Theatre has announced "Festival '71," which will run for two weeks from Saturday, July 31. It will feature folk music, classical music, jazz, French-Canadian songs and ballads, poetry recitals, and theatre events—in fact, something for everyone. On Sunday afternoon, August 1, and Saturday afternoon, August 7, there will be special performances for children.

Tickets and a program of events are available from Room 312 Corbett Hall, 433-3265. Tickets are also available from the box office in McCauley Plaza, and from all Woodward's Stores, 422-4411. Admission will be \$2 for each event, except Sunday, August 1, when the 2:30 p.m. matinee will cost 50 cents, and the August 7 and August 14 matinees, which will be free. Performance details will be announced in the theatre section of the *Edmonton Journal*.

FACULTY CLUB

The following are among the events planned for the Faculty Club this week. For reservations or information, telephone 432-4231.

Friday, July 30. Klondike Games Night, with a special wild game barbecue, Klondike band, and entertainment. The menu for the Gourmet Special will be Scampi Buons Gusto, Royal Pheasant, Caesar Salad, and Rhum Baba, at \$13 for two. The regular dinner menu will also be served.

Saturday, July 31. There will be casual dining in the Saskatchewan Room, with chicken a la Kiev at \$4. The Gourmet Special will repeat Friday's menu at \$13 for two. Dinner will be served between 6 and 9 p.m., and there will be dancing upstairs from 9 until midnight to a dance band.

POSITIONS VACANT

ADMINISTRATIVE AND PROFESSIONAL OFFICERS

ADMINISTRATIVE OFFICER I as Assistant to the Vice-President (Planning and Development). *Responsibilities* will include secretarial work with

policy level committees, production of reports, and assisting in general administrative procedures. The candidate should be proficient in writing in cogent and precise terms. A university degree and a background in university administration and/or in planning will be an asset.

Apply in writing to E. R. SHEDDEN, Assistant to the Vice-President (Planning and Development).

NON-ACADEMIC STAFF

Applicants are sought for the following positions. The Personnel Office (Room 121, Administration Building) will provide further details to interested persons, who are asked not to approach the departments directly.

Clerk Typist II (\$317-\$405)—Slavonic Languages; Provincial Laboratory; Purchasing; Pharmacology; Central Stores; Mechanical Engineering; Psychology
Dental Assistant (\$317-\$405)—Dentistry
Clerk Typist III (\$368-\$468)—Technical Services
Library Assistant I (\$386-\$491)—Library—Book Orders
Clerk Steno III (\$386-\$491)—Fund Development; Education—Clinical Services; Chemistry; Paediatrics
Clerk Steno I (\$288-\$368)—Forest Science
Administrative Clerk (\$468-\$597)—Chemistry
Secretary (\$446-\$569)—AV Media Centre
Student Record Processing Clerk (\$386-\$491)—Registrar's Office
Accounts Clerk II (\$425-\$524)—Office of the Comptroller
Business Machine Technician (\$468-\$691)—Technical Services
Biochemistry Technologist (open)—Cancer Research Unit
Pathologist Technologist (\$491-\$627)—Provincial Laboratory
Programming Consultant (\$691-\$882)—Computing Services
Junior Statistician (\$691-\$882)—Computing Services
Consultant Analyst (\$800-\$1,021)—Computing Services
Writer/Analyst (\$691-\$882)—Computing Services
Electronics Technician II (\$569-\$726)—Romance Languages
Audio-Visual Technician I (\$468-\$597)—Romance Languages
Electronics Technician III (\$571-\$693)—Chemistry

PERSONAL NOTICES

Notices must be received by 9 a.m. the Friday prior to publication. Rate is seven cents per word for the first insertion and five cents per word for subsequent insertions ordered with the first. To avoid billing, notices MUST BE PAID IN ADVANCE. For assistance or order blanks, telephone Mrs. Adrienne Lent, 432-4991.

Accommodation available

FOR SALE—By owner, beautifully landscaped bungalow on Valleyview Drive facing ravine. Four bedrooms, formal dining-room, spacious living area, two fireplaces. Basement rumpus room, den and large bedroom. Two and one-half bathrooms, many extras; professionally priced, \$66,000 for quick sale. 488-8902, 432-5821.
FOR RENT—September, 1971, to May, 1972. Modern bungalow, garage, 15 minutes by car to University. Large living-dining room, kitchen, bathroom, two bedrooms, den, main floor. Bedroom, rumpus room in basement. Fully furnished. Owners travelling during winter. References. \$250. 466-1834.
FOR SALE—Split-level home, very different. Shag carpet, fireplace. Sliding doors to patio. Three

bedrooms, den, double garage. Appliances. 434-5914.
FOR RENT—Three-bedroom house, Petrolia, furnished or unfurnished. Available August 1—two years. 435-6768 after 5 p.m.

FOR RENT—Three-bedroom furnished house in Aspen Gardens beginning September 1 for one year. Study and children's playroom in basement. Lease. \$225 per month. 434-3931.

FOR SALE—Modern house with family room, four bedrooms. Many extras. South side. 434-0287.

FOR RENT—New three-bedroom townhouse in St. Albert. Kitchen has fridge, stove, dishwasher. September 1 or earlier. Phone 434-6710.

FOR RENT—September 1. Attractive bungalow, private yard, 12 minutes University. \$225. 488-6971 evenings.

Accommodation wanted

WANTED TO RENT—Furnished one-bedroom suite from September 1 to December 31. Walking distance University. 432-4930 days.

WANTED TO RENT FOR TWO YEARS—Three- or four-bedroom house close to University. Call 455-0259 after 6 p.m.

WANTED TO RENT—Furnished three-five-bedroom house, about five to fifteen minutes drive University, September 1. References available. (One large bedroom preferred.) 439-3219, 433-0572 evenings.

WANTED—Room and/or board for fall session, fourth year University student—quiet single male. James, 439-6575.

TO RENT—Furnished four-bedroom house from September 1. 435-1445.

Automobiles and accessories

FOR SALE—1965 Ford Galaxie, convertible, one owner. Only 47,000 miles. Excellent condition. 434-5914.

FOR SALE—1968 two-door HT Buick Wildcat. Mint condition, pale green vinyl roof, white interior. Asking price \$2,300. Contact Mrs. K. A. Kyle at 488-9167 after 6 p.m.

FOR SALE—1967 Cougar, 289, automatic, brown, ps, pb, bucket seats, console. Excellent condition, graduate student leaving country. Will accept best offer. 469-8707 evenings.

FOR SALE—1967 Buick Wildcat, two-door hardtop. Many extras. Owner returning overseas. \$1,675. 439-7459.

FOR SALE—1968 Mercedes 220, excellent condition. 469-5782.

FOR SALE—1968 Chevelle SS396, power steering, power brakes, automatic, bucket seats, 36,000 miles. 469-5808 after 5:30 p.m.

MUST SELL—1967 Laurentian (gold), PS. Excellent condition. Leaving country. 454-6920 evenings.

Goods and services

FOR SALE—Mattress and box spring with rails (4'6" x 6'6"). 432-4256 days, 455-3016 evenings.

FOR SALE—1970 Sears 19-inch portable color TV, full service contract, \$375; double bed, \$95; lamps; drapes. 433-9052 after August 3.

FOR SALE—Kerry Blue puppies. The elegant dog with a sense of humor, spirited but sensible, alert guardian, lovely with children, no shedding, no doggy odor. 434-2047.

FOR SALE—Yamaha 1970 100, twin jets. Excellent condition. 439-8267.

SPRINGHILL NURSERY SOCIETY—Some openings available for nursery school, ages two to five. Co-operative, community based school, patterned on British infant schools. Mrs. Ford, 435-8592.

FOR SALE—Royal Worcester fine bone china, green Regency pattern, like new. \$600 value, sell for \$200 or best offer. Also child's car seat and infant back pack. 439-0487.

FOR SALE—Australian black opals. Excellent quality. Good variety. Reasonable prices. 433-0639.

MUST SELL—Complete furnishing for one bedroom. Excellent condition. 454-6920 evenings.